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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Joerg Kaufmann et al.  
Application No. : 09/758,575  
Filed : January 9, 2001  
For : GENES DIFFERENTIALLY EXPRESSED IN BREAST CANCER

Examiner :  
Art Unit : 1645  
Docket No. : PP-01656.002 / 200130.517  
Date : July 3, 2001

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Commissioner for Patents  
Washington, DC 20231

FILING FORMAL DRAWINGS

Commissioner for Patents:

Enclosed are 14 sheets of formal drawings, Figures 1-12B, for filing in the above-identified application.

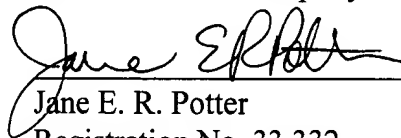


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PATENT TRADEMARK OFFICE

Respectfully submitted,

Seed Intellectual Property Law Group PLLC

  
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Registration No. 33,332

(JEP:cew) #191439



Inventor(s): Joerg Kaufmann et al. Serial No. 09/758,575 Docket No. 200130.517

SEQ ID NO:1

CCGCGAGGTGCGCGGTCTCTTTAAGCGGGTCTGGTGGTTTCTGTTTCTGAAGGAAGTGACGGGGGTGGGATTGAATGAAAGTGCAAAA  
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*Fig. 1*

SEQ ID NO:2

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*Fig. 2*

SEQ ID NO:3

MRLPGVPLARPALLLLPLLAPLLG TGAPA

*Fig. 3*

	10	20	30	40	50	60	70	80	90
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	100	110	120	130	140	150	160	170	180
	AAACACAGGCTCGCAGCGCTGGAGCCCGGGGCGCGGAGCGGGCGGGGCGAGCGGTCTCGCGCTCGGGGCGCGGGGGCGCCCTGC								
	TTTGTGTCGAGCGTCCGACCTCGGGCCCGGGCGCTCGGCCGGCCCCGTGCGGCAGAGCGGAGCCCCGGCGGGCCCCGCGGGACG								
	190	200	210	220	230	240	250	260	270
	TGAGCGTACCCAGTGCCTCGCGCCACCTCGGGGCGACCCCGCGGCCAAGGCCCGCGGAGCGGCTCCGGGGCGCCCCGAAC TAG								
	ACTCGCATGGGTGACACGAGGCGGGTGGAGCGCCCGCTGGGGCGCGGTTTCGGGGGCGGCTCGCCGAGGGCCCGGGGGCTTGATC								

280 290 300 310 320 330 340 350 360  
 CCCCCAATTTGGGCGAAGTTTGCTGCGCTCTCCCGCCCCACGCGGCGCGCGGGGCGCGGACGGCAGCGGCCCGGGGATGCG  
 GGGGGTTGAAACCGCTTCAACGAGCGGGAGAGGGGCGGGGGTGCGCGCGGGGCCCGGGCGCTGCGCGGGGGGCCCTACGC  
 SEQ ID NO:2 M R>

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L P G V P L A R P A L L L L L P L L A P L L G T G A P A E L >

TRANSLATION OF OAFHUMAN [A] &gt;

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R V R V R L P D G Q V T E E S L Q A D S D A D S I S L E L R>

TRANSLATION OF OAFHUMAN [A] &gt;

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TRANSLATION OF OAFHUMAN [A] &gt;

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CCCCGTCTCAGTCAAGTTCGGGAGAGCAAAACAGTGGGTCGACGTCGTGTACTCTAGTAGGGGTCACTCCGGTACCGTTCGAGGCCGT  
G Q S Q F Q A L C F V T Q L Q H N E I I P S E A M A K L R Q

TRANSLATION OF OAFHUMAN [A] &gt;

*Fig. 4A*

730 740 750 760 770 780 790 800 810  
 GAAAAATCCCGGGCAGTGC CGCAGGCGGAGGAGTTCCGGGTCTGGAGCATCTGCACATGGATGTCGCTGTCAACTTCAGCCAGGGGGC  
 CTTTTAGGGGCGGTACGCGGTCCGCTCCTCCAAGCCCAGACCTCGTAGAGTGTACCTACAGCGACAGTTGAAGTCGGTCCCGG  
 K N P R A V R Q A E E V R G L E H L H M D V A V N F S Q G A >  
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820 830 840 850 860 870 880 890 900  
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 L L S P H L H N V C A E A V D A I Y T R Q E D V R F W L E Q >  
 \_\_\_\_\_TRANSLATION OF OAFHUMAN [A]\_\_\_\_\_>

910 920 930 940 950 960 970 980 990  
 AGGTGTGGACAGTTCTGTGTCGAGGCTTGCCCAAGGCTCAGAGCAGGCGGAGTGCCTCGCTGCAGGCAGGTGGGGACCGGGAA  
 TCCACACCTGTCAAGACACAAGCTCCGAGCGGGTCCGGAGTCTCGTCCGCTCGACGGAGCGAGTCCGTCCACCCCTGGCGCCTT  
 G V D S S V F E A L P K A S E Q A E L P R C R Q V G D R G K >  
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1000 1010 1020 1030 1040 1050 1060 1070 1080  
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 CGGGACGCAGCGGTGATACCGGACTCGGACCGGACCATGGGACGTACGAGTTCATGACGGTGTGCGCGCTGGCGGGTGGGGATGTT  
 P C V C H Y G L S L A W Y P C M L K Y C H S R D R P T P Y K >  
 \_\_\_\_\_TRANSLATION OF OAFHUMAN [A]\_\_\_\_\_>

1090 1100 1110 1120 1130 1140 1150 1160 1170  
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 CACACCGTAGGCGTCGACGGTCTTCTCGATGTCAAGCTGAAGATGCACGGGGTCTCCGTCGACACAGAGACCTACTCTAGGGATGGG  
 C G I R S C Q K S Y S F D F Y V P Q R Q L C L W D E D P Y P >  
 \_\_\_\_\_TRANSLATION OF OAFHUMAN [A]\_\_\_\_\_>

1180 1190 1200 1210 1220 1230 1240 1250 1260  
 AGGCTAGGGTGGGAGCAACTGGGCGGGTGGCTGCTTGGGCCCACTGCTCTTACCAGCCACTAGAGGGGGTGGCAACCCCACTGAG  
 TCCGATCCCACTCGTTGGACCCGCCACCGAGAGACCGGGTGACGAGAAGTGGTCGGTGATCTCCCCACCGTTGGGGGTGGACTC  
 G \*

1270 1280 1290 1300 1310 1320 1330 1340 1350  
 GCCTTATTTCCCTCCCTCCCACTCCCTGGCCCTAGAGCCTGGGCCCTCTGGCCCATCTCACATGACTGTGAAGGGGGTGTGGCATG  
 CGGAATAAAGGGAGGGGTGAGGGGACCGGATCTCGACCCGGGGAGACCGGGGTAGAGTGTACTGACACTTCCCCACACCGGTAC

Fig. 4B

1360	1370	1380	1390	1400	1410	1420	1430	1440
GCAGGGGGTCTCATGAAGGCACCCCATTTCCACCCCTGTGCCCTCTTGGGGGCAGAGAGGGGCTCCCCAGATCTACACCCC								
CGTCCCCCAGAGTACTTCGTGGGGTAAGGGTGGGACACGGAAGGAACGCCGTCTCTCCCTCTCTTCCCGAGGGGTCTAGATGTGGGG								
1450	1460	1470	1480	1490	1500	1510	1520	1530
TCCCTCCTGCATCTCCCTGGAGTGTTCACCTGCAAGCTGCCAAAAACATGATGGCCTCTGGTTGTTCTGTGTAACCTCCTTGAACGTTTAG								
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1540	1550	1560	1570	1580	1590	1600	1610	1620
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1630	1640	1650	1660	1670	1680	1690	1700	1710
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GGGAAGGATGAGGGGTGTTCCCGAGTGATAGGGGTTCCTCTCTCGACAACCCCTGGGTGCTGCGTCGGGGACATGACCTAATGTGCTA								
1720	1730	1740	1750	1760	1770	1780	1790	1800
ATTCTCATCTCTGGCCCCGAGGCTGCCTGTGGGGCGAGTGGAGACCTCCCATCACTGAGACAGATCACAGACCAGAGTGCCTTTCCCGG								
TAAGAGTAGAGACCGGGGCTCCGACGGACACCCCGCTCACCTCTGGAGGGTAGTGACTCTGTCTAGTGTCTGGTGCTCAGGAAAGGGCC								
1810	1820	1830	1840	1850	1860	1870	1880	1890
ACCTGGACGTTGCCTCCAAAACAGGCACCAAGCTCTTTCCCTCTCTAGACAGAAATATTTTGTAAAGTTCTGGGGCAGGGAGGGAGCATG								
TGGACCTGCAACGGAGGTTTTGTCCGTGGTGCAGAAAGGGAGAGATCTGTCTTTATAAAAAATTCCAAGACCCCGTCCCTCCCTCGTAC								
1900	1910	1920	1930	1940	1950	1960	1970	1980
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TTCATGCTCCTTTTGAACCTTAAGGTCTAAAAATTACGTTTCATAAATAGTAAAGATGGTCTTTATTTCGAAATTCAAAATGAAC TGAT								
1990	2000	2010	2020	2030	2040	2050	2060	2070
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TACTCTGGGTCTCAAACCTCTTTTGAACACCGGTTACGACGGTGGACTACAGTCTTTACAGGGGTGTGGGATCGTCACCGGATAGAACC								
2080	2090	2100	2110	2120	2130	2140	2150	2160
AACAAGAACTTCGAAAGCACCTACTGTGTGCTCAGCCATTGTAGGAAGGAAGGAGGAGAAGGAAGATGTTACTAGGGAAGGATGAGATAA								
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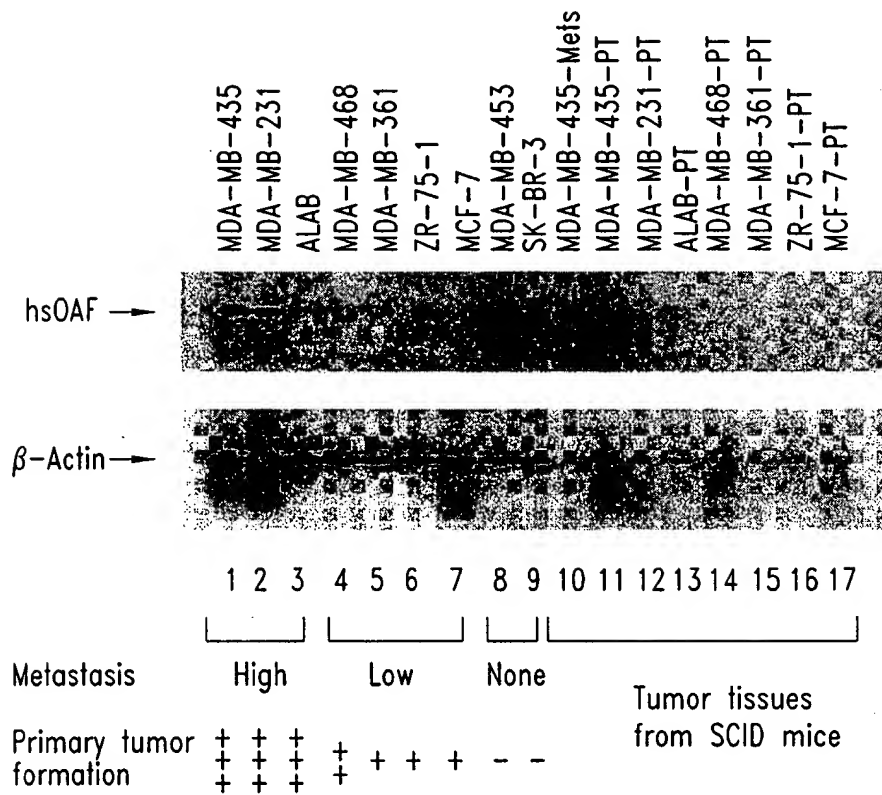
*Fig. 4C*

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      2260      2270      2280      2290      2300      2310      2320      2330      2340
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CTCTAACCTTGGGGCGAAGTCTAGACCGAGCCGATGAATGGACGACACGTCGGTACCCAGTTCAACGAACTGGAGAGACACGGAGGTGA

      2350      2360
CCCTTAGCTATAAAATGAGCTTACTT
GGGAATCGATATTTTACTCGAATGAA
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*Fig. 4D*



*Fig. 5*

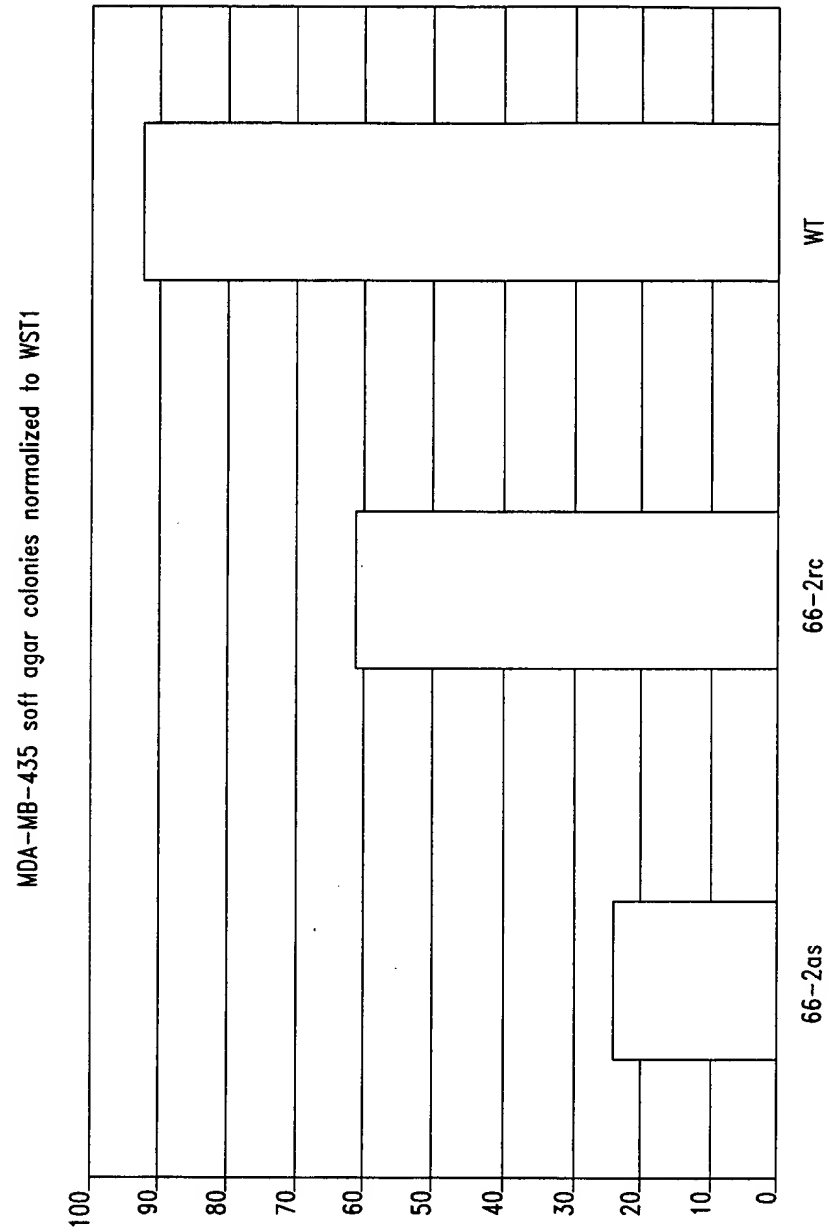


Fig. 6



F 1 MRPG-----VPLAR 10  
 1 MILKEEHPHOSIETAANAARQAQVRNMAHLKALSRTRBAHGNCGRVVSKNHFFKHSR 60

F 11 PALLLLPLAPLLGTAPAELRVVRLPDQVTEESLQADSDASISLELRKPDGILVS 70  
 61 AFLWFLCNLMNADAFASQLINVCNGGEVQESTISNIGDLITLRFQKTDGILIT 120

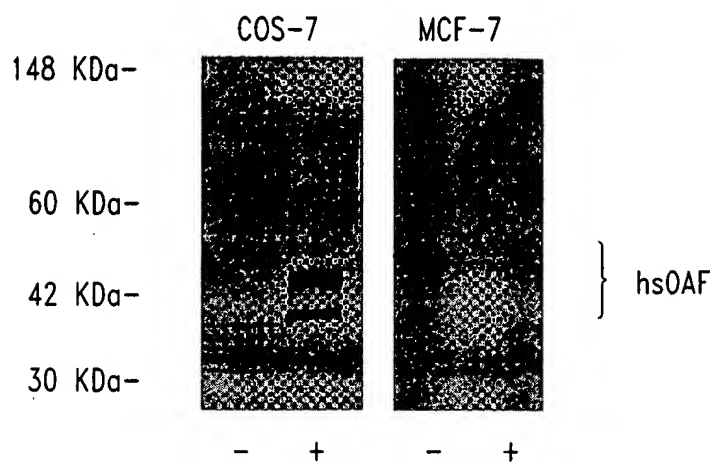
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 121 QVIDIRNEVQILKALVLGEKKGQSQYQVMCFATKFNKGDIFSSAMAKLRQKNPHTIRT 180

F 131 AEEVRGLEHLMDVAVNFSQALLSPHLHNVCAEAVDAIVTRQEDVRFMLEDGVDSSVF 189  
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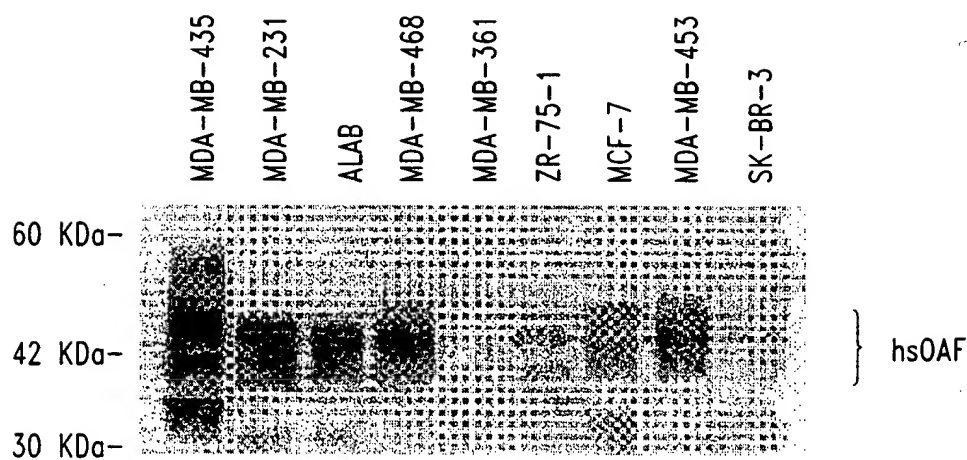
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 241 KATEKFPQTLSTRQNEVSSLWAPCLCNLETICIGWVPGGLKVCKGKGVAGADSSGAQQQA 300

F 237 RPTVKGIRSCOKSYSFVVPQRQLLWDEDPYPG 273  
 301 OPTVRCGIKTRKQTOFTYVVRQQLWDE 332

Fig. 7



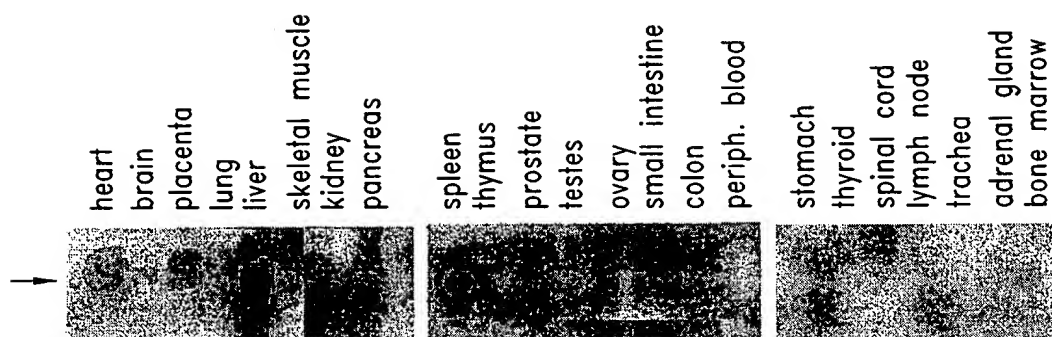
*Fig. 8A*



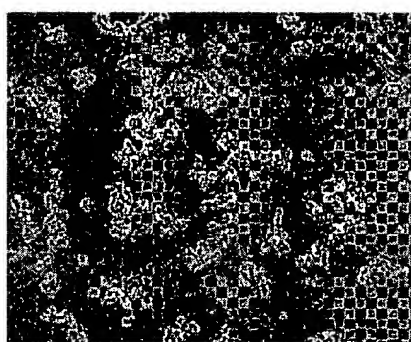
*Fig. 8B*

Title: GENES DIFFERENTIALLY EXPRESSED IN BREAST CANCER

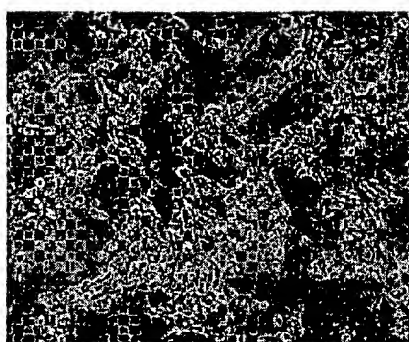
Inventor(s): Joerg Kaufmann et al. Serial No. 09/758,575 Docket No. 200130.517



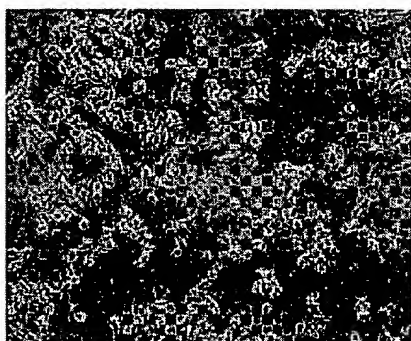
*Fig. 9*



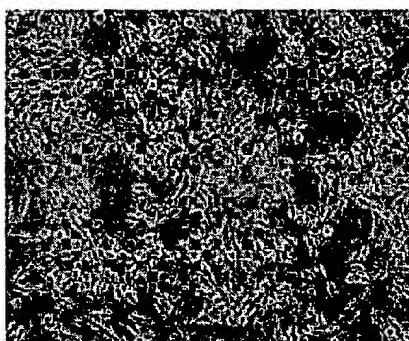
AS



RC

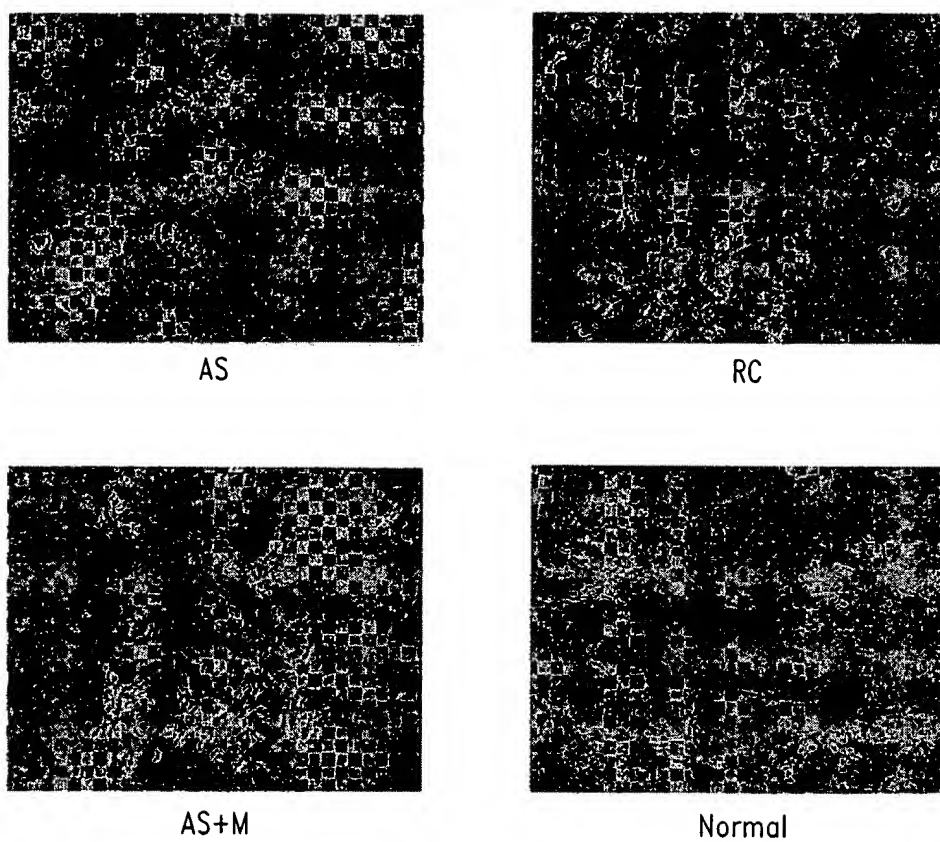


AS+M



Normal

*Fig. 10A*



*Fig. 10B*

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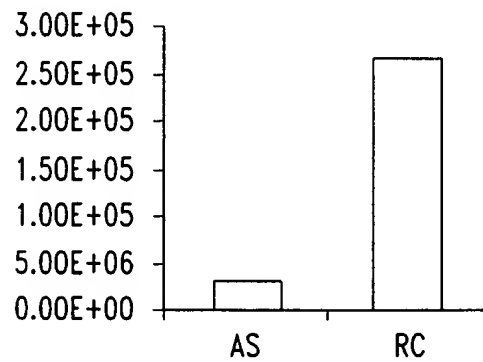
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539 CGCAAGCCCGACGGCACCTCGTCTCTTCCACCGCGACTCTCAAGAAGATGTGAAGGTCTTCCGGGCGCTGATCTGGGGAGCTGGAG  
62 R A K P D G T L V S F T A D F K K D V K V F R A L I L G E L E  
629 AAGGGGACAGTCA GTTCCAGGCCCTCTGCTTTGTGTCACCGAGTGCAGCAATAGATCATCCCAAGTAGGGCCATGGCCAAGCTCCGG  
92 K G Q S Q F Q A L C F V T Q L Q H N E I I P S E A M A K L R  
719 CAGAAAAATCCCGGGAGTGC CGGACGGCGGAGGAGTTCGGGGTCTGGAGCATCTGCATGAGTGTGCTGTCAACTTCAGCCAGGGG  
122 Q K N P R A V R Q A E E V R G L E H L H M D V A V N F S Q G  
809 GCCCTGCTGAGCCCCCATCTCCACAAGGTGTGTGCGGAGGCGGTGATGCCATCTACACCGCCAGGAGGATGTCCGGTCTGCGTGGAG  
152 A L L S P H L H N V C A E A V D A I Y T R Q E D V R F W L E  
899 CAAGGTGTGACAGTCTGTGTTGAGGGCTCTGCCCAAGGCCTCAGAGCAGGCGGAGCTGCCTCGCTGCAGGCAGGTGGGGGACCGGGG  
182 Q G V D S S V F E A L P K A S E Q A E L P R C R Q V G D R G  
989 AAGCCCTGCGTGTGCCACTATGGCTGAGCCTGGCCTGGTACCCCTGCATGCTCAAGTACTGCCACAGCCGACCGGCCACGCCCTAC  
212 K P C V C H Y G L S L A W Y P C M L K Y C H S R D R P T P Y  
1079 AAGTGTGGCATCCGACGCTGCCAGAAGACTACAGTCTGACGTGTCGCCACAGGACGCTGTGTCTCGGAGTAGGATCCCTAC  
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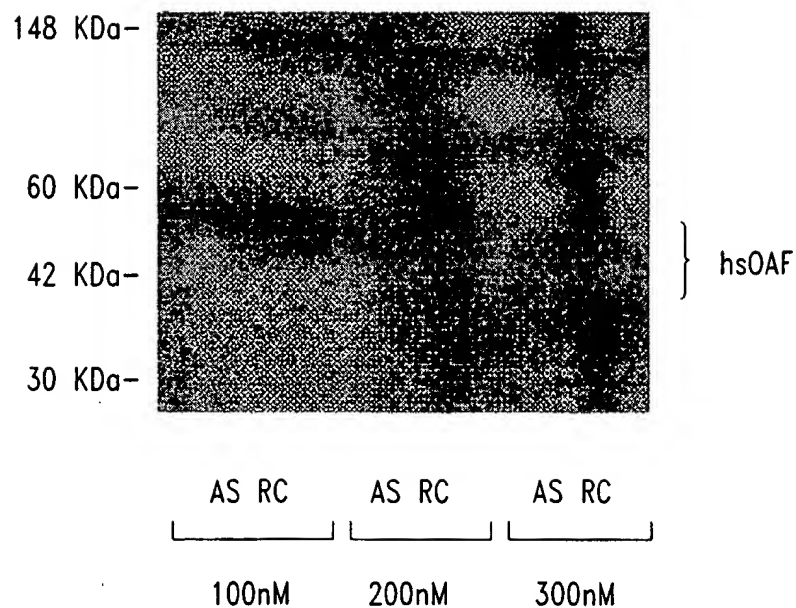
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*Fig. 11*



*Fig. 12A*



*Fig. 12B*